

Anorexia Nervosa: Etiology, Impact, and Treatment

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Abstract: This is a general overview of Anorexia Nervosa by reviewing around 20 research and studies from the past and present, compromising with its etiology, psychosocial impacts, treatment, and recommendations for future academic research. In the result and discussion section, the potential etiology for Anorexia nervosa was introduced from various biological, external, and personal aspects. Then, the psychological impact on patients with anorexia nervosa was illustrated, providing a detailed discussion on the impact of the stigmatization of anorexia nervosa. Finally, presenting the possible treatment methods and recovery factors. Recommendations and future implications were suggested at the end. Overall, this report helps individuals to gain more insight into this eating disorder. Promoting a more comprehensive understanding of anorexia nervosa and raising public awareness of potential risk factors. Understanding anorexia nervosa, as summarized in this article, can reduce the stigma attached to the disorder, increasing understanding and motivation to seek external help to achieve a higher recovery rate.

Keywords: anorexia nervosa, eating disorders, psychopathology, distorted body image, self-inflicted illness

1. Introduction

Eating disorders are defined by an abnormal change in eating or eating-related behavior, typically including changes in what or how much people eat and the approaches people employ to prevent food from being absorbed, for instance, making themselves vomit or taking purgatives to prevent any possible food intake. The present paper mainly focused on the study on the Anorexia Nervosa (AN), which is a specific type eating disorder. Anorexia Nervosa is a common category of a psychosocial pathological eating disorder. In way of illustration, Specific pathological symptoms regarding anorexia nervosa can be described as a significant loss of weight for age, gender, developmental pathway, and physical health issue developed due to a restriction of energy intake for body requirements, according to the DSM-5 definition. Although the prevalence of AN stayed relatively low, the prevalence rate gradually increased as time passed, particularly after the updated definition of AN from DSM 4 to DSM 5. Hence, it is essential to understand AN's detailed information to reduce the prevalence rate possibly. This paper will review the literature from three themes: etiology, gender differences, treatment, psychosocial impact, and treatments.

The etiology can be analyzed from genetic, external, and personal factors. The aspects of gender differences were presented as women facing a higher risk of having Anorexia Nervosa than men. In contrast, gender differences were observed to be linked to the levels of severity. The psychological and physical effects of the stigmatization of anorexia nervosa on patients are highlighted. Moreover,

different types of treatment and recovery factors were suggested as a means to increase the recovery rate for Anorexia nervosa.

Thus, the primary purpose of this report is to give a comprehensive overview of the specific eating disorder of Anorexia Nervosa. Educating the public to have a more integrated and detailed understanding of any potential risk factors contributing to the causation of anorexia nervosa and reducing the disorder's prevalence. Equivalently, raises public awareness of psychopathology. On this basis, suggestions were given for the future investigation direction in studying Anorexia Nervosa, mainly focusing on the efficiency of different treatment methods corresponding to different types of etiology of Anorexia Nervosa.

2. Methodology

This is a literature review paper based on research and studies collected using Google Scholar in the field of Anorexia Nervosa (A.N), searching by specific keywords to find the most related resources. A total of 30 kinds of literature were reviewed, but only 20 valid pieces were used as a reference. Both present and past literature were used to give a comprehensive and detailed overview of anorexia nervosa. All literature was further classified into five sections: etiology, gender differences, psychosocial impact, and treatment. Each section was then discussed in detail with various literature support.

3. Results and Discussion

3.1. Etiology

The etiology of anorexia nervosa can be discussed from three aspects, biological, external, and personal. Regarding the biological factors, several molecular pathways were found in the tube involved in anorexia nervosa. Specifically targeting dopamine and serotonin pathway, the altered dopamine pathway might be one of the potential causes of AN. A study comparing the concentration of serotonin and dopamine metabolites was studied on 16 patients with AN before and at intervals after weight recovery. A significant association has been stated between low levels of serotonin and dopamine metabolite and patients with anorexia nervosa [1]. In addition to the molecular pathway, the significant contribution of a genetic component to anorexia nervosa has been verified by numerous studies. A recent study has shown that genetic factors account for approximately 50% to 74% of AN developing risk [2]. According to an empirical study, variations in Neurontin (NNAT) and changes in NNAT expression may be linked to a higher susceptibility to anorexia nervosa [3].

Despite the biological factors, external and personal factors have also been emphasized. Considering the external factors, data suggested that the influence of strict body image requirements in popular sociocultural exerts widespread pressure on young women, causing a change in dieting behaviors to become thinner to meet social expectations, thereby increasing the likelihood of developing AN [4]. Meanwhile, it has been observed that child who lives in families under severe family conflict, reduced parenting time can cause increased feelings of depression, especially for families with girls. It may imply that family distress and impairment can result in the accommodation process that occurs in families who have a child with anorexia nervosa [5]. Such family features can be more detailed and depicted as parental over-control, strict parents with high expectations, childhood deprivation, and poor relationship with parents. Similarly, family interaction patterns have been observed, for instance, rigidity, excessive control from parents, overprotectiveness parenting style, and discord in marriage. Nevertheless, no significant empirical evidence can suggest the presence of a “typical” anorexia family.

The etiology of developing AN can also originate from individual temperament and personality characteristics, such as low self-esteem or self-confidence [6], perfectionism, and obsessionality [7].

As claimed by the interview report [5], perfectionism and low self-esteem were the primary causes of AN in 26.6% of patients [8]. Through the description of these two factors mentioned by the interviewer, it can be found that the essence of these two causes stems from the individuals' lack of confidence in self, self-denial, and low self-esteem, as a way to choose to achieve a perfect image in self-perception through extreme dieting, which gradually leads to pathologizing and forming anorexia nervosa. In recent research [9], anorexia nervosa patients scored remarkably higher on the Multidimensional Perfectionism Scale than the control subjects' group. Therefore, these findings suggested that perfectionism is a vital and essential distinguishing factor for developing anorexia nervosa. In summary, the causes of AN are more diverse, and the biological factor of genetic inheritance cannot be ignored.

3.2. Gender Differences

As reported by the National Institute of Mental Health (NIH) statistics on eating disorders, between 2001 and 2003, the prevalence rate of women was 0.9, three times higher than that in men with only 0.3% on a lifetime scale. After a progression of time, the rate of occurrence and prevalence of eating disorders in males are on the rise, based on a current study [10]. Compared to men, women have a higher probability of developing anorexia nervosa than the stars, possibly due to the socio-cultural factors mentioned in the previous etiology section. The sociocultural influence on body image anxiety significantly impacts the female population, resulting in a greater prevalence rate of AN in females than in males. Furthermore, recent studies focus more on studying the gender differences across the severity categories of AN. Most research indicated no significant gender difference in eating disorders psychopathology across different severity levels of AN for males and females [11]. However, a similar study proposed contradicting results showing an increase in eating disorder psychopathology across different levels of severity among AN patients [12].

3.3. Psychosocial Impact — the Impact of Stigmatization of Anorexia Nervosa

Various studies have demonstrated that anorexia nervosa has a remarkable negative psychosocial impact on each individual during the state of illness and after recovery. An investigation report revealed that 44% of patients declared a significant impairment of social functioning, including difficulties interacting with others or peers and problems with family [12]. Specifically, underline the negative impact on the relationship with others; patients feel isolated from others due to anorexia nervosa and cannot form close relationships with others [13]. Patients perceived themselves as lack of social skills. Individuals may find it difficult to interact with their peers or feel uncomfortable socializing with others. In addition to interpersonal relationships, poor working efficiency and low academic performance were also observed. Nevertheless, other studies have argued that work attendance was maintained for patients with low body weight. The psychological impact of AN on patients is enormous, with 91% of patients claiming to have an intense experience of negative feelings. For instance, feeling anxiety, depression, and low self-esteem. These emotions may lead to a more significant deficiency of social skills in the patient, thus becoming more withdrawn, and the situation will be vicious.

In addition to the psychosocial impact of AN on individuals, the stigmatization also affects patients significantly. Lay perceptions of AN's etiology practically correspond to individuals with the illness. However, the discrepancy beliefs about disease control may lead to AN stigmatization. Another related study classified the stigma into two groups, self-attribution, and responsibility. The concept of self-attribution believes patients should be able to control the development of their disorder. At the same time, individuals should be responsible for the development and maintenance of the disorder.

As a consequence of these attitudes, it may decrease the likelihood for patients to seek external help and increase self-accusation, which could further worsen the condition. Moreover, others perceive AN as a self-inflicted illness, presenting low empathy toward AN patients. Consequently, the effect of stigmatization on AN patients leads to tremendous anger and a reluctance to seek outside interventions to help with treatment.

The decline in the patient's desire to seek medical attention due to stigma may exacerbate the existing condition and cause the patient's physical condition to deteriorate over time due to unchanged abnormal eating behaviors. Bone disease and dental problems were the major physical problems. The low body mass causes impaired bone quality which may increase the fracture risk. Thus, the impact of stigmatization of anorexia nervosa is tremendous. Therefore, in summary, all the literature shows that these effects of stigmatization of anorexia nervosa on patients are interrelated, and if this stigmatized anorexia nervosa is not reduced at the root, returning to a complete psychological and physical state of normalcy may be extremely difficult for AN patients.

3.4. Treatment

The research [13] estimated that the average crude mortality rate was 5.0%. Among the surviving patients, only 46.9% of AN patients recovered to a whole, healthy state, 33.5% had improvements in AN symptoms, and the remaining 20.8% developed into a chronic disease. This may demonstrate that AN's recovery rate is shallow, thence treatment methods and recovery factors are crucial. Building or obtaining supportive relationships has been ranked as the most mentioned recovery factor, followed by self-maturation/growing up and psychotherapy counsel [5]. According to the interviewees, individuals felt loved and valued by others when they had supportive relationships, suggesting that solid supportive relationships can increase their self-esteem and confidence.

Similarly, The helpfulness of having social support from family and friends was ranked as the third factor with 42%. In comparison, individual therapy (52%) and drug therapy (47%) were ranked as the first and the second effective treatment methods [13]. Specific types of therapy were expected and developed to target interpersonal difficulties, such as interpersonally psychotherapy, cognitive analytic therapy, and focal psychoanalytic therapy [13]. The research [13] recommends clinicians provide follow-up therapies with recovered patients for extended periods. Since a strong association was published between the recovery rate and the increase in the duration of follow-up sessions, regarding the low recovery rate of anorexia nervosa eating disorder or the specific condition between each patient's psychological and physical, no specific psychological treatment can be regarded as the most efficient method.

4. Conclusion

In conclusion, the etiology of AN can be divided into biological, external, and internal factors. Specifically, the biological component mainly focuses on genetics or inheritance, external factors may relate to family dysfunction and sociocultural influences, and internal factors can be considered personality features. However, the stigmatization of the etiology of AN severely reduced the possibility of patients seeking outside interventions or treatments. Most individuals regard AN as a self-inflicted illness or self-attribution. Also, the determinants in terms of biological factors of AN etiology have been underestimated compared to the social or psychological factors. So the stigma and superficial perception of anorexia nervosa may sometimes worsen the condition and even cause psychological stress to the patient. Hence, the physical condition may also be affected by a lack of external help in time, such as oral problems and bone illness. Besides, the impacts of AN on patients' psychosocial aspects are also significant. Patients may become more depressed and anxious due to a lack of understanding or social support. Therefore, the effects of stigma can be enormous on patients

and cannot be ignored. Reducing the stigma and prejudice against anorexia nervosa may be more effective in helping patients recover physically and psychologically. Finally, different types of treatments and recovery factors are discussed. But there is no specific treatment that can be called the most effective. This may indicate that the recovery process for anorexia nervosa patients cannot rely on a single type of psychotherapy but requires a combination of family and social psychological help and long-term psychotherapy. Yet, few studies with sufficient evaluation and descriptive data after completing the treatment were published.

Hence, for future direction, it may suggest that more studies with detailed data focus on the effectiveness of different treatments so that a more comprehensive comparison can be conducted between different types of interventions. Future studies can explore the efficiency of treatment for different types of anorexia nervosa based on different etiologies. This would be highly beneficial to the patient and their family, who could have a more straightforward choice of the most effective and appropriate treatment for their condition. From the overview of the AN, more attention should also be given to promoting family education and multicultural identity to reduce the risk of developing anorexia nervosa at the origin. Thus, this study aims to encourage the public to have an excellent social, supportive relationship, and a proper perspective on mental illness can significantly help people with AN.

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